

Serial No. 08/444,791

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having a Fc portion and hinge region of an IgG heavy chain polypeptide. Thus, the language in the specification enables and supports in new claims 66 and 67.

New claim 66 of the present application claims the same the invention claimed in claim 48 of the present application and encompassed by claim 18 of the present application's parent application, U.S. Serial No. 07/580,113, filed September 10, 1990 ("Parent Application"). For IgG, the TNF receptor fusion proteins in claims 66, 48, and 18 (claim 18 is directed to IgG or IgM) are identical in meaning. Moreover, the vectors of claim 67 are encompassed by claim 59 in the present application and claim 27 in the Parent Application. Accordingly, the present specification and the Parent Application support the invention of claims 66 and 67.

Claim 66 is fully supported by the present specification. Page 3, line 35 to page 4, line 4 of the present specification discloses "DNA sequences which combine two partial DNA sequences, one sequence encoding soluble fragments of TNF binding proteins and the other partial sequence encoding all domains except the first domain of the constant region of the heavy chain of human immunoglobulin IgG, IgA, IgM, or IgE." With regard to claim 67, on page 4, lines 6-9 it is stated that the "invention additionally comprises vectors containing the above DNA sequences."

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Page 17, beginning on line 18, is describes "expression of proteins which consist of a soluble fragment of non-soluble TNF-BP and an immunoglobulin fragment, i.e. all domains except the first of the constant region of the heavy chain." Example 11 on page 42 of the present specification provides data relating to the use of vectors for the expression of chimeric proteins encoded for by a cDNA fragment encoding the extracellular region of the 55 kDa TNF receptor.

At page 10, lines 19-22, the present specification describes the soluble protein fragment as extending from nucleotide -185 to 633 or from nucleotide -14 to 633 of the sequence given in Figure 1. The terms "soluble fragment" and "extracellular region" are used interchangeably in the specification when referring to the extracellular domain of the TNF receptor polypeptide. See page 3, lines 36 and 37 and page 10, line 20, referring to soluble fragments, and page 42, line 6, referring to the extracellular region.

Referring to the Chizzonite Declaration at page 3, when referring to an immunoglobulin, the portion designated as containing all domains except the first domain of the constant region of the heavy chain of human immunoglobulin IgG consists of the hinge, CH2, and CH3 domains of the immunoglobulin heavy chain. Likewise, the Fc portion of an IgG heavy chain consists of the CH2 and CH3 domains. Thus, the Fc portion and the hinge region of human immunoglobulin IgG consists of hinge, CH2, and CH3. Accordingly, the phrase "sequence encoding all domains except

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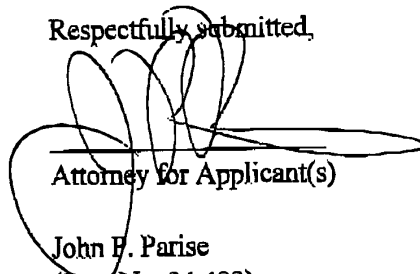
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the first domain of the constant region of the heavy chain of human immunoglobulin IgG" as found in the specification is identical in meaning to the phrase "segment having a sequence encoding ... a Fc portion and hinge region of an IgG heavy chain polypeptide" as found in claims 66 and 67.

Accordingly, every limitation in claims 66 and 67 are fully supported by the specification.

If any fee is required in connection with the filing of this Amendment, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 08-2525.

Respectfully submitted,



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Enclosure (1)
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